JFW

From:

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Re: Detailed Action
Application/Control Number 10/828,805
Art Unit 2875

Considering the statement that an illustration is required:

The word description of invention idea describes possible configurations mathematically and in terms of the physics involved. A drawing would show one manifestation while precluding all other possible manifestations which are possible, thus limiting the scope of the applicability. Patent is intended to apply to any shape that a light carrying rod of constant cross-section can be structurally bent or molded into, that shape presenting the light interior to the rod, with the exterior surface of the rod, such that said light strikes exterior surface at an angle of incidence to facilitate the conveyance of the light from the interior to the exterior of the rod.

The number of shapes that a rod of constant cross-section and smooth finish can take are limitless and cannot possibly be conveyed in one or several drawings.

Considering Claim Objections #3

Please find enclosed corrected Claim.

Considering Claim Rejections – 35 USC 103

The light pipes described by Jones et al or Hashimoto and or Redick are intended to convey the light from one end of the tube to the other, using the pipe to contain and convey the light, as a hose can contain and convey a fluid from one end to the other or an electrical conductor, wire, can contain and convey electricity from one of its ends to the other. The function of their pipe is not to act as the

transmitter of light from the inside of the pipe to the outside along the length of the pipe.

My invention uses the geometrical relationship between the paths taken by photons and the exterior surface along the length of the pipe, so as to present the exterior surface to the photons at an angle of incidence that causes the photons to leave the pipe, rather than being reflected back to the interior of the pipe. Not all photons interior to the pipe will leave at any given cross-section, as not all photons will arrive at the exterior at the necessary angle to be transmitted outside the pipe. It is intended that with enough continuous curve or linked curves along the pipe that all interior photons will be presented with an angle of incidence to the surface such that eventually they will all leave the pipe along its length rather than out the end.

Thus my invention differs from all others in that the light-pipe acts as the conveyor of light from the inside of the pipe to the outside along the length of the pipe. This is done while maintaining the optically transparent surface of the pipe, without altering the surface as is done in other devices.